



Baseline Water Quality Testing With Respect to Gas Wells

The Community Science Institute (CSI) recommends that landowners near horizontal, hydraulically fractured shale gas wells hire a certified laboratory to test water on their property before the gas well is drilled and at regular intervals after it is completed. The set of tests that CSI recommends is designed to have a high probability of providing a “chemical signature” of contamination by gas well wastes while also being as affordable as possible. Obtaining a water quality baseline before the gas well is drilled and hydraulically fractured is absolutely essential if a landowner wants to make a case in court that the gas well is the cause of contamination. Further, the tests must be performed by a certified lab to have legal standing, and the samples must be collected by an unbiased third party. Often the certified lab collects the samples.

It is important to note that New York State has not yet recommended this or any other set of tests for possible contamination from gas wells. Further, it is CSI’s understanding that case law in the area of water contamination by gas wells is sparse because to date, relatively few lawsuits have been brought. This may change as more gas wells are drilled in Pennsylvania and New York and if there are documented cases of water contamination. Be that as it may, baseline testing is not a guarantee that a landowner will prevail in court if a gas well is drilled nearby and her drinking water becomes contaminated. Nevertheless, baseline testing gives a landowner a fighting chance. Without baseline testing there appears to be little hope of receiving compensation of any kind.

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| <u>Tests performed in CSI Lab</u> | | Conductivity | \$12 |
| pH | \$12 | Chemical oxygen demand | \$20 |
| Alkalinity | \$18 | <u>Tests subcontracted to other certified labs</u> | |
| Total dissolved solids | \$18 | Metals (barium, iron, manganese, arsenic, strontium) | \$90 |
| Chloride | \$20 | Methane (natural gas) | \$110 |
| Total suspended solids | \$18 | Volatile Organic Compounds (VOCs) | \$125 |
| Turbidity | \$12 | Gross alpha and beta radioactivity | \$65 |
| Total hardness | \$18 | Sample processing and shipping | \$35 |
| Calcium | \$18 | Site fee, per property | \$45 |
| MBAS (detergents) | \$32 | | |

TOTAL COST OF TESTS PER SAMPLE: \$668

Travel fees:

Mapquest distance _____ x \$.55/mile = \$_____ (/ _____ # properties = \$_____)

Mapquest travel time _____ x \$30/hour = \$_____ (/ _____ # properties = \$_____)

TOTAL COST OF SAMPLE COLLECTION = \$ _____